THE BUTEYKO METHOD
An Effective Treatment for Asthma

Russian physician Professor Buteyko developed this simple, drug-free treatment for asthma and other diseases after he noticed that over-breathing disturbs the metabolism and makes the body more prone to illness.

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I have been a medical practitioner for twenty-three years, with both city and country practices and overseas postings, and in that time I have treated thousands of asthma patients. Like every conscientious medical doctor, I have kept up to date with the latest research and with advances in techniques and medication in order to help my patients to the best of my ability. This has been especially important to me, as I take a keen interest in respiratory diseases. In addition, much of my work has been in Australia, where a major respiratory disease has a strong hold.

Australia and New Zealand have more asthma sufferers per capita than any other countries in the world. More than one million people (some estimate nearly two million) have asthma in Australia; that is, 25% of children, 15% of teenagers and 10% of adults. In New Zealand, 700,000 people, or 20% of the population, have asthma. In 1995, one New Zealand child in five had asthma; for Maori children, the figure was one in three.

Asthma is on the increase in the industrialised countries of the world. In the USA, 16 million people suffer from it, as do three million in the United Kingdom. Boys have asthma more commonly than girls, and about one child in four has asthma at some stage of development. About half the children with mild asthma will improve and "grow out of" the condition through their teenage years. The others have to continue with a disease that can interfere with their pleasure in life, their education, their sporting interests, their well-being and even their relationships with family and friends. Adult or "late onset" asthma also occurs, more frequently in women than in men. These unlucky people not only suffer acute discomfort, disruption of every aspect of their lives and often sheer misery from their condition, but they may also be facing a threat to their life. Not only is asthma itself on the increase, but so are deaths from asthma attacks. It is a frightening fact that in Australia in 1996, for instance, asthma attacks caused more than 800 deaths.

Medicine in the 20th century has not coped well with asthma. The number and availability of drugs to treat the disease have been sharply increasing since the beginning of the century, but so has the incidence of asthma. The Asthma Foundation of Australia reported that the incidence of asthma in children in Australia doubled between 1982 and 1992. As a doctor, I could not help wishing that there was another way of helping a child control his or her asthma, instead of having to fall back on an increase in the drugs I prescribed.

Then, in the early 1990s, I first became aware of the work and methods of a certain Professor Konstantin Pavlovich Buteyko, a diagnostic respiratory physician whose techniques, developed in the 1950s, were considered a breakthrough in Russia and still are, after decades of research and treatment of asthma patients. It was two of my patients who told me about it—a mother and daughter who had attended a clinic in Sydney and had both derived extraordinary benefit from the simple breathing technique that they were taught by the Buteyko practitioner.

I became interested, and I observed the technique over a long period. Doctors are always cautious about any new research or treatments they observe, and I was no exception. But there is nothing more convincing to a scientific mind than genuine, sustained and verifiable results, and I eventually became convinced, from the objective evidence, that I was looking at a dramatically effective treatment for asthma. I began referring patients to the clinic and became supervising medical officer, so this enabled me to monitor and help my patients and others even more effectively. Consequently I have also been able to make a study of the 8,000 patients treated so far in Australia, and when invited I have spoken on radio and television about the far-reaching, beneficial effects of this natural, benign method. My book, *Every Breath You Take,* was the result of six years of

research into the method and the results it has achieved for asthma sufferers. The results are astonishing and suggest a direct link between our breathing patterns and our level of health.

THE THEORY BEHIND THE BUTEYKO METHOD

The Buteyko theory is that the basic cause of asthma is habitual, hidden over-breathing (literally, taking in too much air when breathing). The treatment is based on bringing the breathing to normal levels and thus eradicating over-breathing (hyperventilation) and reversing the need for the body's defence mechanisms. These defence mechanisms, according to the theory, include spasm of the airways, mucus production (in the chest, nose, throat and ears), and inflammation (swelling) of the bronchial walls.

The Buteyko method's message is that when asthma sufferers learn to alter the volume of air they habitually inhale, their asthma attacks can be significantly reduced and the use of asthma drugs and apparatus can be reduced or entirely eliminated.

It is possible that the economies of the industrialised countries worldwide could save billions of dollars spent annually on asthma drug subsidies and hospitalisation, if their health administrators took notice of the advances in asthma treatment pioneered by Professor Buteyko.

The method is on record as having benefited 100,000 patients in Russia, and it is officially recognised by the Russian Government. Professor Buteyko's experimentation and his documented clinical trials on patients in Russia indicate that the great majority of asthma sufferers over four years old can be significantly relieved by the method (younger children may find it more difficult to learn), and any individual on asthma drug treatment can reduce that drug intake by 90% or more in the majority of cases.

Outside Russia, the first Buteyko clinical trials on asthma sufferers were completed in 1995 in Australia by Associate Professor Charles Mitchell of the Queensland University Medical School, Dr Simon Bowler of the Mater Hospital and Ms Tess Graham of the Buteyko Group. The results of the first half of the trial, which were presented to a conference of the Thoracic Society in Hobart on 30 March 1995, supported the findings of Professor Buteyko, and a press release at the time made the general findings public.

The Buteyko method is taught in all capital cities and many country areas of Australia, as well as in New Zealand, Europe and the United States [see contact details at the end of this article].

With more than 10,000 people having learnt the method in Australia as at mid-1999, the success rate continues to be very high. Asthma sufferers attending the clinics have found that, after learning and practising the method, they can reduce their use of relievers and preventers to varying significant degrees.

It is impossible to overestimate the importance of the Buteyko method for asthma sufferers and their families. I believe it is the great medical breakthrough of the 20th century, and I am proud to be author of the first-ever book on this subject outside Russia.

The book was the result of my own investigation of the theory and practice of the method, and relied on my close experience with the clinics and the patients who have benefited from the method. That experience is ongoing and growing. I have the sanction of Professor Buteyko and of the Buteyko clinics to reveal the method, its scientific bases and its results.

THE IMPORTANCE OF CARBON DIOXIDE

You may have thought that in a discussion about the lungs we would talk about oxygen first and foremost. But the first thing I want to bring up here is how important carbon dioxide is in the body. In fact, we know that each human cell needs a specific concentration of carbon dioxide—about 7%—to sustain normal life.

When human life first began on the planet, the composition of the atmosphere was different from what it is today, for there was more than 20% of carbon dioxide in the air that living beings breathed. But the percentage has fallen greatly, and now our air contains only 0.03% of carbon dioxide. Our bodies have had to compensate gradually for this, and they have done so by creating an internal air environment in the small air sacs inside the lungs. With the action of normal, healthy breathing, these air sacs, or alveoli, contain around 6.5% of carbon dioxide. So, as we breathe in and out normally, that 6.5% of carbon dioxide exists inside the lungs, in balance with the oxygen that we also need to stay alive.

An important factor that seriously affects that level of necessary carbon dioxide in the lungs is *over-breathing*, also known as *hyperventilation*. If we breathe in too great a volume of air for our body's needs, we breathe off carbon dioxide too rapidly and the lungs are unable to maintain the right level in the air sacs. When carbon dioxide is low due to over-breathing, this causes a chemical reaction which makes it hard for oxygen to be released from the bloodstream into the tissues of the body. The tissues of the body then become starved of oxygen, despite the blood being rich in oxygen.

Tissues starved of oxygen cannot be healthy: they become irritable; and smooth muscles react by going into spasm. Smooth muscle is found around our air tubes and around blood vessels, arteries and veins, and forms part of the wall of the intestines.

Oxygen starvation of vital organs (such as the brain) excites the breathing centre in the brain, thereby creating a state of *breathing stimulation.* This increases the breathing even further, creating a "shortness of breath" sensation in the already deep-breathing person, which further deepens the breath and creates a vicious circle because even more carbon dioxide is breathed off.

BREATHING LEVELS

Table 1.

Normal breathing	3 to 5 litres per minute	Healthy level of 6.5% carbon dioxide in air sacs.
Hidden over-breathing	5 to 10 litres per minute	Results in very gradual sickness not easily noticed, and illness develops over many years.
Over-breathing	10 to 20 litres per minute	This is known as an "attack", where the adult asthma sufferer, or a person with a related condition, hyperventilates rapidly.
Severe over-breathing	20 to 30 litres per minute	At this maximum level, the person suffers a sudden anxiety attack.

THE RESULTS OF OVER-BREATHING

Professor Buteyko came up with the theory that a majority of the human population actually over-breathes, some more severely than others. Because people are unaware of this factor, he called it *hidden hyperventilation*—long-term over-breathing not clearly visible to the individual.

He noticed that the result of obvious over-breathing has the equivalent effect of an acute and serious anxiety attack: shaking hands, anxiety, chest pain, air hunger, finger tingles and spasm (tetany), cramps and racing pulse. He went on to find that the effect of less serious over-breathing, which is not noticed immediately, has equally dire consequences for a person's health over time.

The amount of air we breathe is measured in litres. Table 1 shows the effects of normal breathing and over-breathing.

In general, the person's system becomes ill through over-breathing, and is then more prone to viral illness and allergies. The shift in the rate of body activity disturbs the normal flow of chemical reactions in the body and results in further illness.

If over-breathing disturbs our basic total metabolism, as the Professor believes, we can start to understand how it might cause a diverse set of symptoms: bronchospasm (spasming of the air tubes), heart blood- vessel spasm and increased blood pressure. These symptoms are recognised and help us define certain diseases: asthma, angina and hypertension. Professor Buteyko concluded that if breathing is not corrected, this in turn leads to further deterioration of asthma, sclerosis (hardening) of blood vessels and lungs, myocardial infarction (heart attack) and strokes. In fact, he claims over-breathing to be directly linked to at least 150 diseases. The Buteyko theory states that these diseases are the body's defence mechanism against the excessive loss of carbon dioxide through over-breathing.

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It is important to remember that the human organism tries at all times to keep carbon dioxide at the normal, beneficial level in the lungs. Buteyko theory explains that when we over-breathe, the body adopts a defence mechanism to retain carbon dioxide. These are the signs of this at work:

1. Spasm of the airways and air sacs. These close up to make openings narrower in an effort to keep the carbon dioxide in the lungs.

2. Mucus and phlegm development. This is another way for the body to narrow the airways in an attempt to trap the carbon dioxide.

3. Swelling of the mucus lining and the bronchial tubes. This is a further way for the body to narrow the airways.

Asthma sufferers will instantly recognise the above symptoms. There is another that is not obvious to those who over-breathe:

4. Increased production of cholesterol in the liver. This causes a thickening of the cell walls of the blood vessels, which in turn prevents transfer of carbon dioxide from the blood vessels back to the small air sacs in the lungs.

Professor Buteyko concluded that to avoid making the body ill through over-breathing, and also to avoid the uncomfortable and unpleasant effects of the defence mechanism at work, the solution was to educate the over-breathers so that they could learn to breathe in a shallower way, so that their lungs could return to normality—that is, with the carbon dioxide level at around 6.5 per cent. To achieve this re-education, it was important for people to see what factors were making them over-breathe in the first place.

TRIGGERS THAT MAY CAUSE OVER-BREATHING

According to Professor Buteyko's research, the majority of people over-breathes or hyperventilates. Some people seem to over-breathe more than others, so they may be more susceptible to certain external factors.

There are a number of triggers which seem to make this situation a special problem for those who have a tendency towards asthma:

1. The belief that deep breathing is helpful and improves health. This is received wisdom in the Western world, though not in Eastern cultures, where shallow breathing is practised for bodily and mental health. We breathe in more air when we exercise, it is true, but it does not follow that regular deep-breathing is beneficial. In fact, try to make the barbecue fire catch by breathing in deeply and blowing out hard, and you will rapidly become faint. Observe top athletes and swimmers: these super-fit people have the slowest pulse and shallowest breathing in the population. A fit, healthy body breathes slowly and more shallowly. Swimming is the best sport for asthma sufferers because swimmers hold their breath while exercising; they practise the Buteyko method without realising it.

2. Stress from both positive and negative emotions. Both excitement and depression cause stress, and research shows that people under stress over-breathe.

3. Over-eating. When we eat too much, the system has to work harder to process the food, and this can cause over-breathing. To avoid this, one should not over-eat. It is also a fact that animal protein makes the body work harder. Many asthma sufferers will have noticed that red meat and cheese (animal protein), for example, sharply increase hyperventilation. To avoid over-breathing caused by the food we eat, it is better to eat more plant products than animal products. You should also eat raw food more than cooked food, as raw food causes less over-breathing.

4. Lack of regular exercise. Physical activity, on the other hand, encourages the release of carbon dioxide from the body cells, increasing its level in the lungs. In vigorous exercise (except for swimming), of course, we breathe deeply, which results in a short-term drop in the carbon dioxide level, but the long-term result of fitness is a higher level of carbon dioxide in the lungs and better nourishment of all the cells in the body.

5. Prolonged, excessive sleep. Professor Buteyko's research demonstrates that lying down for a long time, especially on the back, while asleep or while bed-ridden, causes severe over-breathing. Techniques to avoid over-breathing in horizontal positions are described later. Patients should sleep only 6 to 7 hours if possible, on the left side, and breathe through the nose with the mouth firmly shut.

6. Hot and stuffy environments. We over-breathe when our body detects that the air we are breathing does not contain what we need. On the other hand, mild or cold temperatures all assist

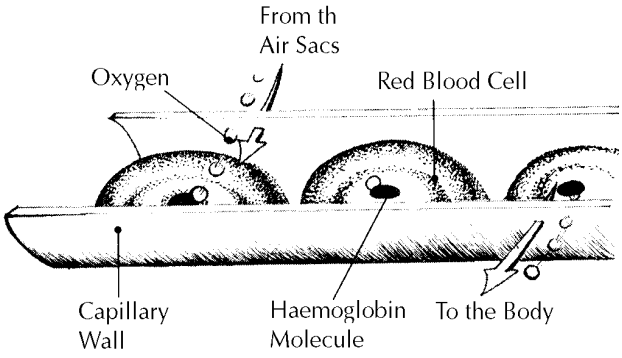
shallow breathing—a conclusion reached after 10 years of research and measurement. We soon realise this when we sit in a sauna: sweating may detoxify the body, but it also creates extra work, causing hyperventilation. When we move from a cooler climate to a hot one, a similar reaction can occur.

7. Bronchodilators. These are standard medication for asthmatics. Bronchodilators give quick relief at first, but Professor Buteyko argues that they in fact cause further over-breathing because they are designed to open the air passages and keep them open maximally for 4 to 12 hours, allowing the sufferer to continue what he or she thinks of as "normal" breathing. Based on Professor Buteyko's research, a person who suffers from asthma is an over-breather, so after 2 to 12 hours the low carbon dioxide level means that their airways will go into spasm again, and the bronchodilator will be needed once more. This is a vicious circle.

8. Excessive sexual activity. The hyperventilation in sexual activity is obvious—and normal. It is only when this activity becomes excessive because of a sex addiction that hyperventilation becomes a problem, because it lowers the level of carbon dioxide in the lungs.

9. Smoking and pollution. When we walk into a smoke-filled room we may cough; this is because we are entering a situation that is allergic and toxic. We also get the signal, "not enough air", so we over-breathe. Some people, asthmatics included, react more sensitively to such situations than others and have the same reaction to pollution: over-breathing.

10. Alcohol and recreational drugs. These put a stress on the body due to their toxicity and overstimulation, and Professor Buteyko's studies give evidence that they lead to over-breathing.



This is a schematic diagram of what happens when oxygen molecules pass from an air sac in the lungs, through the wall of a capillary, and into the blood. The oxygen molecules are absorbed into the red blood cells (left) *and, when the carbon dioxide level is high enough in the blood, they are better released from the red-cell haemoglobin, through the capillary wall and into the tissues of the body* (right). *If the carbon dioxide level is not high enough, the oxygen molecule "sticks" to the haemoglobin molecule* (centre) *and is trapped in the red cell, and less oxygen is released to feed the tissues.*

THE PHYSIOLOGY OF BREATHING

We all know that breathing plays a vital role in the human organism. Nutrition is of major importance to us, yet we can survive without food for weeks and without water for days. But if the average individual is without air for three to five minutes, he or she cannot survive. We normally breathe 20,000 to 30,000 times every 24 hours.

The optimal level of carbon dioxide (CO_2) in the alveoli, or small air sacs in the lungs, is around 6.5%. If for any reason (such as over-breathing) it falls below this, there is a gradual alkaline reaction, called *respiratory alkalosis*, in the lungs. At the extreme, if the carbon dioxide level falls to below 3%, shifting the pH (the acidity level) to 8 (more alkaline), the organism dies. When the carbon dioxide level is lowered, the gradual alkaline reaction in the lungs carries through to the blood, and total blood CO_2 will also be low. The kidneys further try to "buffer" or correct this imbalance. This partially makes up for the CO_2 deficiency, but it sets up a course of events which changes for the worse the rate and efficiency of activity of all the vitamin and enzyme systems in the body—and it is these systems that run our energy and vitality.

While air is held in the lungs, the molecules it contains pass through the walls of the alveoli and into the blood, to be carried around the system to nourish the body tissues. Oxygen is carried in the blood by means of a haemoglobin (Hb) molecule (which is part of a red cell). When the carbon dioxide level is low due to over-breathing, the oxygen is held tighter than normal to the Hb molecule, due to a chemical bond, and cannot readily separate itself from the haemoglobin. Not enough oxygen is getting into the tissues, so they become starved of oxygen. This oxygen starvation of the tissues is called *hypoxia*.

The tissues of the human body include muscles, of which there are three types:

• Striated muscle, e.g., the biceps and triceps muscles;

• Smooth muscle, found around bronchi and bronchioles or air tubes, around blood vessels, arteries and veins, and as part of the wall of the intestines. You can guess that smooth muscle is of importance in asthma.

• Cardiac muscle, i.e., specialised muscle cells, each cell able to contract by itself.

As stated before, tissues starved of oxygen cannot be healthy—they become irritable; and the way smooth muscle reacts in distress is to contract or spasm. Thus, we start to understand that if carbon dioxide is not at its proper or normal level (6.5%) in the air sacs and falls too low through over-breathing, the oxygen becomes more bound to the haemoglobin molecule and is less able to separate and feed the tissues.

Now, children in the Western world are generally taught that the deeper they breathe, the more oxygen they get "inside". Most adults believe this, as well as in the efficacy of all sorts of "deep breathing" exercises. It is true that we take in more oxygen when we breathe deeply, but how much oxygen is then available from the blood to the tissues? This availability is governed by something known as the Verigo-Bohr effect, where lowered levels of CO_2 strengthen the bond between haemoglobin and oxygen, thus lowering the oxygenation of the tissues. The stated purpose of the Buteyko method is to reverse the Verigo-Bohr effect.

To summarise, oxygen enters the lungs, goes into the blood and is trapped by the haemoglobin molecule. How easily it is released to feed the body cells depends on the level of carbon dioxide. The oxygen is properly released when carbon dioxide is at a high level in the lungs. If it is low, the tissues suffer oxygen starvation. Oxygen starvation affects all the vital organs, and it has a particular effect in one of them, the brain: it excites the breathing centre located there, setting off a state of *breathing stimulation*. This increases the breathing even further, creating a "shortness of breath" sensation in the already over-breathing person, which further deepens the breath. So then there is a further progressive decrease (breathing off) of carbon dioxide from the lungs.

The way to reverse this process is to breathe more shallowly, to trap more carbon dioxide in the lungs and return its level to normal. If the carbon dioxide rises again to normal levels, oxygen is more readily released from the haemoglobin molecules and can then nourish the tissues and cells.

It is interesting to note that few medical experts in the Western world have taken very much account of the idea of shallow breathing. Eastern ideologies, on the other hand, have proposed for centuries that there is value in stopping over-breathing, and have made breath control part of a wide range of exercises for the body and mind, examples being the practice of meditation, yoga (*pranayama* breathing), Tai Chi, Chi Gong, and Judd-Shi from Tibet.

THE AIM OF THE BUTEYKO METHOD

Over-breathing, then, is an increase in the function of the lungs above what is normal. It is also called *hyperventilation*. The significance of Buteyko's discoveries hinges on the diagnosis of what he termed *hidden hyper - ventilation*. This is long-term over-breathing that we are basically not aware of.

Professor Buteyko became interested in breathing levels in general. What happens, he asked, at all the levels between the extreme hyperventilation we have described, and the normal human breathing rate?

Professor Buteyko could clearly see, as can anyone else, the effects of over-breathing to a level of 30 litres of air per minute. Anyone who breathes like this (don't try it!) will suffer the equivalent effect of an acute and serious anxiety attack, i.e., shaking hands, anxiety, chest pain, air hunger, finger tingles and spasm (tetany), cramps and a racing pulse.

An adult who suffers from asthma usually breathes 5 to 10 litres of air a minute when he or she is "well". During an attack, the rate increases to 10 to 20 litres per minute. The simple—and achievable—aim of the Buteyko method is to get the volume of air breathed down to normal, i.e., 3 to 4 litres per minute.

A series of regulated breathing exercises is used to teach the person who over-breathes to breathe a normal volume of air for the rest of his or her life. It can be done—thousands of relieved patients have proved it—and the technique is so simple that a child can follow the method and even have fun while learning.

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THE BUTEYKO BREATHING EXERCISES

The Buteyko course consists of five to ten sessions of tuition, varying from one to two hours each. Usually five to seven sessions of one hour are enough for the patient to witness improvement and have confidence in the technique. However, the most severe cases, such as those who need regular hospital admittance, may require up to nine months of practice to achieve the desired level of health. In the Buteyko technique, patients are taught to normalise their breathing. They are asked to:

1. Breathe in and out, both through the nose only, to reduce over-breathing.

2. Tape the mouth up while sleeping, unless there is some severe nasal condition. Adults can easily adapt to this, but it often frightens parents initially. However, I have seen no child come to any harm over seven years of recommending the practice. Partial taping can be practised until children and parents become more confident. A very light, easily removable micropore tape is used.

3. Sleep on the left side and avoid sleeping on the back. Sleeping on the back causes the most hyperventilation. Professor Buteyko's research has shown that sleeping on the left side causes least hyperventilation.

4. Increase the control pause and the maximum pause (which are defined next).

The Control Pause

The control pause is described as the time it takes someone to breathe out normally, then hold his or her breath in the out position until the very first signs of discomfort occur. That measurement is recorded, then the person continues to breathe through the nose in a shallow pattern. Most people can achieve 10 to 20 seconds, at rest. Some cannot achieve even one second, while others can do 40 seconds plus, quite naturally. The idea is to succeed in holding the breath in the out position for up to 50 to 60 seconds, until first difficulty is reached, to achieve the desired improvement. This is the measure of success.

If a person has a control pause of 15 seconds, he or she is breathing a volume of air per minute that is enough for four people. A control pause of 30 seconds indicates the person is breathing for two people. A control pause of 60 seconds means breathing is under control and he or she is breathing for one person.

The Maximum Pause

The maximum pause is the time it takes a person to breathe out normally, hold his or her breath in the out position and, through specially taught exercises and distractions, prolong this pause to the maximum time. With exercise, repetition and perseverance, some people surprise themselves with times of up to two minutes and even longer.

Patients are asked to come to classes for education and encouragement in these breathing exercises and to discuss problems and incidentals such as coincidental viruses, personal problems and so on. Often, family members are invited to attend, free of charge, to encourage the patients further.

Between the classes, patients are urged to follow the four rules set out above (only nasal breathing, sleeping on left side, etc.), and to follow a rigid regime of breathing exercises. Twice daily exercises for 20 minutes are required.

Some people with mild illness stop their exercises after some two months and find their breathing has changed to a more shallow pattern, where they take in less air or take smaller breaths. They can then stop their exercises altogether, as they no longer hyperventilate. So, in order to prolong the maximum pause, firstly the patient, under supervision, breathes out to the maximum,

holds the nose and firmly closes the mouth while seated upright. Then, he/she holds the breath in expiration (that is, with "empty" lungs) until he/she feels uncomfortable.

The person then continues in expiration while utilising one or more distractions:

1. Body gyrations. These involve moving the torso about while holding the nose—flinging the body from side to side, bringing the head towards the knees, rocking from side to side, and rocking forwards and backwards.

2. Mobile exercises. Finally, the sitting gyrations don't distract the person enough and he/she stands up while holding the nose and begins to walk around the room in circles. He/she may walk outside the room, keeping on the move until he/she can really no longer hold the breath. In our clinic, this is often called "the Groucho Marx walk".

3. Nose-breathing. The person then tries to prevent over-breathing by breathing strictly through the nose. He/she sits down again and deliberately tries to achieve a shallow breathing equilibrium. After a rest of two to three minutes of shallow nose-breathing, another control pause is carried out.

4. Fun & Games. Children usually make a game of the exercises. When they start to have difficulty holding the breath, and really want to breathe in while they are sitting down and holding the nose, they pace out steps around the room and count up the number of steps in their heads. Some do squats; some jump up and down on the spot. Afterwards, they compare their results with others. Both children and adults can be fiercely competitive over their achievements!

Adult asthma sufferers are usually accustomed to using peak-flow meters. But rather than using the meters (which can be used if desired, however), Buteyko practitioners prefer to use a single instrument: the stopwatch. Success is measured as each person's increase in control pause is accurately timed.

Maximum pause can be stretched to surprising lengths, but it is the control pause which is the final measure of success. If the feeling of first difficulty does not arise until 40 to 60 seconds have passed, a patient can feel confident that his/her respiratory problems are improving rapidly, that the hyperventilation is being corrected and that the oxygen and carbon dioxide ratio has been normalised. However, if the person feels an attack coming on, he/she can do one maximum pause, then three minutes' shallow breathing, then one more maximum pause. If no relief is felt, the patient can take one puff of the bronchodilator and, if necessary, one puff five minutes later.

A typical session of Buteyko breathing exercises is described here in table 2.

Table 2. A typical session of Buteyko breathing exercises

1. Take the pulse
2. Control pause
3. Three minutes' shallow breathing
4. Maximum pause
5. Three minutes' shallow breathing
6. Control pause
7. Three minutes' shallow breathing
8. Control pause
9. Three minutes' shallow breathing
10. Maximum pause
11. Three minutes' shallow breathing
12. Control pause
13. Three minutes' shallow breathing
14. Take the pulse again

Practice Time for the Buteyko Exercises

• **Mild cases** of asthma tend to be episodic, and may be triggered by types of exercise or by viral infections. Once the Buteyko method has been learned and practised correctly, mild cases tend to need only episodic treatment with bronchodilators and episodic breathing exercises.

• **Moderate cases** are those who suffer from frequent asthma or mild continuous asthma, and those who make regular use of a bronchodilator with usually a steroid preventive inhaler. The exercise requirements for these people are 2 to 4 times per day for 20 minutes.

• **Severe cases** are usually on medication of two different types of bronchodilator inhalers plus steroid inhaler, with or without oral steroids and with or without other agents like methotrexate. They tend to need frequent hospital visits. The breathing exercise requirements for people who suffer serious attacks, with protracted stays in hospital, are 3 to 5 times per day for 20 to 30 minutes initially, later easing to two sessions. To achieve best results, these sufferers may need 3 to 12 months of practice.

A Final Note of Caution

The purpose of this article is to familiarise the reader with the Buteyko theory and method, not to serve as an instruction manual. The Buteyko method should not be learned without expert supervision. Consult a Buteyko teacher and medical/health practitioner before proceeding with any exercises or treatments.

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About the Author:

Paul J. Ameisen, MBBS, ND, DipAc, FACNEM, has been a Medical Practitioner for 21 years. His first appointment was as Resident at St Vincents Hospital, Sydney. He has since practised at Liverpool Hospital, Sydney; Framingham Union Hospital in Boston, USA; Baragwanath Hospital, South Africa; and Mudgee District Hospital, NSW, Australia. He has a Diploma of Naturopathy, a Diploma of Acupuncture from *Medicina Alternativa*, and is a Fellow of the Australian College of Nutritional and Environmental Medicine. Dr Ameisen is currently in private practice. He is the author of *Every Breath You Take* (Lansdowne Publishing, Sydney, 1997, ISBN 1-86302-567-7).

Editor's Notes:

• Dr Paul Ameisen was a speaker at the 1999 NEXUS Conference in Sydney. Videotapes of his talk, "Secrets of Correct Breathing" are now available; see Video Reviews this issue for details.

• This article is edited from Dr Ameisen's book, *Every Breath You Take* (reviewed in NEXUS 5/02, Feb-Mar 1998). Copies of the book are available from NEXUS offices.

Buteyko Information:

For more details about the Buteyko method and practitioners:

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